



PERSPECTIVES

LEARNING FROM RUSSIA

How China used Russian models and experiences to modernize the PLA

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MAIN FINDINGS AND CONCLUSIONS

- This paper challenges the common assumption among military analysts that China's military reforms are driven by strategic competition with the United States and inspired by changes in the US military as the sole template.
- China's People's Liberation Army (PLA) has been considerably influenced by Russian doctrine, force structuring and equipment from its inception and continues to draw heavily on the Russian experience.
- Since coming to power, Xi Jinping has used military reforms to re-establish firm control over the PLA in much the same way as Russian President Vladimir Putin wielded his role as Commander-in-Chief after the Russian military's poor performances in Chechnya and Georgia.
- The establishment of the PLA Strategic Support Force (PLASSF) seems to have been inspired by the Russian model. China's military officers and strategists continue to be schooled in Russian thinking on "new generation warfare" and have identified the Russian strategy as a key battle-winning factor.
- Joint training has become a major facet of Sino-Russian military cooperation and has been expanded from land, air and sea exercises to embrace sensitive fields like information and anti-missile technology.
- Delving deeper into Russian military thinking and doctrines will be important to forecast the likely future trajectory of PLA reform.

1. Introduction: China's military follows Russian models

China's People's Liberation Army (PLA) was structured, trained and equipped by Stalin's Soviet Army from its inception. The entire PLA military leadership cut their teeth in Russia and adopted Russian military doctrines, concepts and thinking in the early years of the People's Republic of China (PRC). Even when policy differences or the clashing egos of Mao Zedong and Nikita Khrushchev led to tensions, the PLA continued to rely on Russian military thinking. This has been especially true in the armaments and aviation industries.

In the 21st century, the 2001, Sino-Russian "Treaty of Good Neighborliness, Friendship and Cooperation," signed by China's then-president Jiang Zemin and Vladimir Putin, has provided the guiding framework for cooperation between Russia and China. It elevated the relationship to a strategic level, with both parties agreeing to consult in cases of "threat of aggression."¹

The Russian and Chinese leaders have reaffirmed this special relationship several times since, notably when China's President Xi Jinping hailed the 2001 treaty as an example of a "new type of bilateral relation"² on its fifteenth anniversary.

This paper challenges the common wisdom among military analysts that China's military reforms are driven by strategic competition with the United States and inspired by changes in the US military. It is certainly true that US military prowess has triggered Chinese military thinking on upgrading PLA forces – for instance swift US military success in the invasions of Kuwait (1990-1991) and of Iraq in 2003 (whatever may be said about that mission's later problems). More recently, the US display of technology and missilery in Syria, Afghanistan and Libya has stimulated rethinking. However, it is one-sided to view the US as the sole template. This paper argues that PLA reforms continue to draw heavily on the Russian experience as well.

The PLA has been considerably influenced by Russian doctrine, force structuring and equipment. There are compelling reasons for China to follow Russian models for military reform:

- **Equipment homogeneity.** China's modern weaponry, including indigenously produced equipment, is basically the same as Russia's.
- **Geopolitics.** China and Russia are traditionally land-centric countries that share a long border and similar geography. There is a convergence of thinking on the roles envisaged for their militaries. Both militaries also originate in similar political systems and socio-political habits.
- **Basic military strategy and doctrine.** The fundamental military strategy adopted by both is '*strategic defense*', or as the PLA's stated military strategy calls it, '*active defense*'. Turning to perceived internal threats, both nations identify challenges from the "three evil forces" of separatism, terrorism, and religious extremism. PLA thinkers have studied Russia's counter-insurgency strategy in Afghanistan and the Chechnya wars in great detail.³
- **International military security.** According to PLA sources, China and Russia have cooperated in safeguarding the international nuclear non-proliferation regime; in promoting denuclearization on the Korean Peninsula; countering terrorism; maintaining cyber security; opposing the militarization of space; and encouraged the cessation of Cold War mind-sets in many countries.

China's modern weaponry is basically the same as Russia's

2. Russian and Chinese “revolutions in military affairs”

The term Revolution in Military Affairs (RMA) denotes major, inter-connected changes in strategies, doctrines, equipment, organization and structures that aim to fundamentally alter a nation’s approach to warfare.⁴ In general, militaries are change-averse and require a “top down” directive to undertake revolutionary or disruptive changes. For instance, it took the US Senate’s Goldwater-Nichols Act in 1986 to push through a deep transformation of the US army. China’s Goldwater-Nichols moment came in 2012 when Xi announced the creation of five Joint Theatre Commands and other ground-breaking directives.

In many ways, recent Russian and Chinese RMAs appeared to share a similar fundamental aim, namely to shift from “protracted large scale conventional military conflict in the 1980s into a more compact, high technology military to engage in swift and intense securing of operational aims in the twenty-first century.”⁵

Both, China and Russia, have undergone – or are still undertaking – thorough reforms to their military setup. In Russia, the transformations were largely triggered by conflict and insurgencies that followed the collapse of the Soviet Union in 1991. Other more recent events have also pushed Russian military actors into active politico-military confrontation with the West, such as the 2011 ouster of Gaddafi, followed by a wave of regime changes and color revolutions and Russia’s 2014 annexation of Crimea.⁶

RUSSIA:

Russia has always leveraged its military as an instrument of power, especially when using coercion and manipulation against its neighbors to meet its national objectives. It has met with considerable success in using ‘hybrid warfare’, a pairing of indirect warfare with conventional military power. Today, Russia considers itself a major power, believes ‘itself to be the rightful hegemon in its own region, and reintegrate[s] the former Soviet space to the extent possible around its own leadership’.⁷

The updated Military Doctrine that Putin issued in 2014 noted the diminishing probability of Russia facing large-scale attacks, referring instead to ‘unresolved regional conflicts’. This essentially offensive military strategy was complemented by a meticulously shaped concept of information warfare as an enabler

to achieve military goals.⁸ It was, and is, an aspirational strategy aimed at making Russia great again, that has many echoes in the “China Dream” promulgated by Xi.

CHINA:

In China, the main political drivers of military reforms have been the desire to tighten civilian political control over the PLA, and the need to curb rampant corruption inside the military. Shortly before he came to power, Xi’s ascent to the presidency was threatened by his rival Bo Xilai and Bo’s cohorts in the PLA.⁹ When Xi assumed office, he was therefore faced with the urgent need for the Chinese Communist Party (CCP) to rein in the military.¹⁰ Within the military, the root causes of indifference to the political arm of the party-state and of rampant corruption were:

- 1; inadequate supervision of the PLA by the CCP’s top leadership
- 2; inadequate political work and ineffective CCP organs within the PLA
- 3; senior PLA officers at the Central Military Commission (CMC), the general departments, and the military regions had too much power and were not always responsive to orders from the center
- 4; institutional supervisory mechanisms were either corrupted (in the case of the promotion system and auditors) or ineffective (party committees and military courts).¹¹

Reforms were also driven by the desire to increase the PLA’s ability to carry out joint operations on a modern, high-tech battlefield. The military reforms proposed by Xi since he became Commander-in-Chief have included modernization initiatives to reorganize the command system, force structure, and education and training.¹²

Xi’s reform of the PLA echoes measures initiated by Russian Defense Minister Anatoly Serdyukov and his successor Sergey Shoygu around the beginning of this decade. Xi has used military reforms to re-establish firm control over the PLA in much the same way as Putin wielded his role as Commander-in-Chief after the Russian military’s poor performances in Chechnya and Georgia.

The political and internal security situation when Xi assumed control offers several parallels to the Russian situation. The military was not entirely under the

When Xi assumed office, he was faced with the urgent need to rein in the military

control of the Party: a civil-military divide was evident, corruption was rampant and a “peace time mentality” had taken hold. This catalysed the realisation that the PLA in its existing form was not capable of protecting the interests of the CCP. For Xi and his cohorts, the Russian experience suggested a path to address these challenges. Xi’s reforms appear to have succeeded, thereby achieving three major political aims:

- Xi’s absolute control over the PLA
- setting out the structures for future PLA operations
- the PLA’s relationship to the CCP now rests on accountability, loyalty and control.¹³

To cement his control, Xi took over as Commander-in-Chief of the military’s Joint Operations Command Centre.¹⁴ By doing so, he placed a tighter grip on the CMC by assuming direct charge of administering all wings of the military; the PLA, including its air force and navy, the People’s Armed Police (PAP), the militia and the reserve forces. Under his reforms, four main vertical chains – command, development, administration and supervision – became better defined, with clear lines of responsibility for decision-making, planning, implementation and evaluation processes.¹⁵

The “Chinese Military Strategy” published 2015 marked an important step towards a more offensive military strategy:

“China’s armed forces will continue to implement the military strategic guideline of active defense and enhance military strategic guidance as the times so require. They will further broaden strategic vision, update strategic thinking and make strategic guidance more forward-looking. A holistic approach will be taken to balance war preparation and war prevention, rights protection and stability maintenance, deterrence and warfighting, and operations in wartime and employment of military forces in peacetime.”¹⁶

China’s active defense, as set out here, was not purely defensive in the military sense: a threat to the PRC’s economy or polity was also believed to justify a PLA response. The annual report to the US Congress in 2018 emphasized the strategy’s inherent offensive intent, suggesting that “according to this concept, defensive counterattacks can respond to an attack, or be launched to disrupt an adversary’s preparations to attack. The PLA interprets active defense to include both de-escalation and seizing the initiative.”¹⁷

The concept of active defense has many parallels to Soviet strategy. However, direct comparisons are difficult. Nor is it likely to have been taken solely from Soviet thinking. In the post-Cold War era, there were congruities in thought amongst Russian and Chinese thinkers that the time of global wars had passed and that local conflicts were likely to become the conventional threats of the future.¹⁸

In 2003, the CMC formally approved the “Three Warfares Strategy.” The strategy consisted of three main pillars: public opinion warfare to influence domestic and international opinion in support of its military actions, psychological warfare to deter and demoralize adversaries within its own population, and legal warfare that placed China on a high moral pedestal, using domestic and international laws to shape international support for its military operations.¹⁹

The UK’s Chief of Defence Staff, General Sir Nick Carter, has highlighted the parallels with Russian strategies, stressing that the West faces “political warfare” by both China and Russia.²⁰

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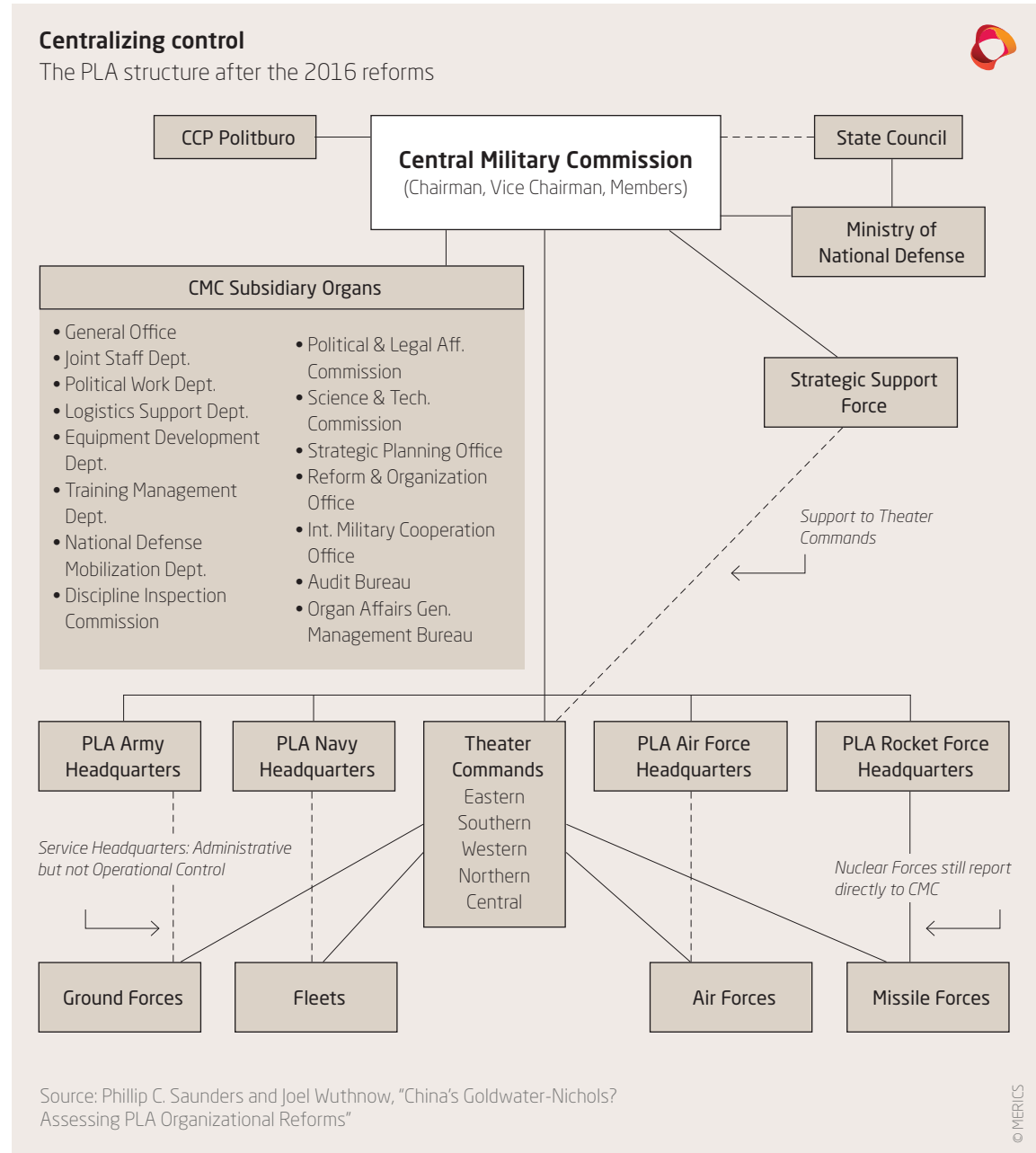
3. Xi's military reforms mirror Russian modernization efforts

3.1 "ABOVE-THE-NECK REFORMS"

In January 2016, Xi formally approved sweeping changes that were strongly reminiscent of the Serdyukov reforms in Russia, and took the form of restructuring of the Higher Defense Organization. Serdyukov had faced strong resistance from the military's upper echelons. Xi's planners managed to avoid this by moving swiftly. Xi's so-called "Above-the-neck Reforms" scrapped the four powerful General Departments and reconfigured the CMC into 15 sections; seven departments, three commissions and five directly affiliated offices. The reconfiguration gave the PLA Higher Defense Organization (HDO) an entirely new look. Power was divested and spread horizontally, with all these sections made responsible to the CMC. The PLA emerged with a flatter and less hierarchal structure.

On February 1, 2016, the reforms replaced the system of Military Regions with five new Military Theatre Commands (MTC).²¹ Drawing from the reorganization of the Russian Army, the PLA reforms also changed the siloed MR structures, which inhibited joint operations and needed the CMC to superimpose itself in war.

Some analysts have argued that the PLA adopted the US model of Theatre Command. However, the US approach fundamentally differs in geographical extent and responsibility structure: US Theatre Commands are global and externally oriented while PLA Military Theatre Commands are restricted to China's national boundaries.



3.2 NEW MILITARY THEATRES

The PLA's new system of five MTCs was designed to conduct integrated battles under conditions of informatization (or "intelligentization"²²) with each MTC commander able to draw on elements of all the services, including new domains such as space, cyber and electro-magnetic. Like the Russian system, it adopted geographical divisions and gave them similar names and designations to the Russian regional structure. Again, like the Russian reforms, each MTC addresses both external and internal threats in its area of responsibility (AOR). Aside from unity of command, which ensures quick decision making and deployment of forces, the reforms also mirrored the three-tier command chain adopted by the Russian military: CMC to MTC to Brigades. The five MTCs are now positioned not merely for regional defense, but also for "head-on and proactive defense."²³

Perhaps the PLA's biggest takeaway from the Russian experience was the establishment of the PLA Strategic Support Force (PLASSF). China's military officers and strategists are schooled in Russian thinking on "New Generation warfare" and have paid keen attention to Russia's success in Ukraine and Syria, where they identified the Russian information warfare strategy as the key battle-winning factor. The PLA has therefore created one integrated structure, which is responsible for all military space, cyberspace and electronic warfare (EW) operations²⁴ and forms the core of China's information warfare force.²⁵

3.3 "BELOW-THE-NECK REFORMS"

Chinese restructuring of the Group Armies into Combined Corps (CCs) and Combined Arms Brigades (CABs) copied the Russian model of the 58 Combined Arms Army (CAA) in Ukraine. Although 18 Group Armies have morphed into 13 Combined Corps and roughly 82 Combined Arms Brigades, the structure is still evolving. During the author's visit to units of the Beijing Military Division in October 2018, he observed that the 1st Guards Division (note, Division not Brigade) had Motorized Regiments on its order of battle, rather than Combined Arms Brigades.²⁶

However elsewhere, such as in the 21st Group Army (Chengdu) or 31st Group Army (Fujian), for example, Motorized Divisions have been replaced by Combined Arms Brigades. While Group Armies (or Combined Corps) underwent a transformation; Military Districts continue to retain Mechanized and Motorized Divisions. There are reasons to believe these apparent anomalies may be prompted by recent reports from the Russian military of a rethink on the conversion of Divisions to brigades.

China's new system of military theatres has many parallels to the Russian system

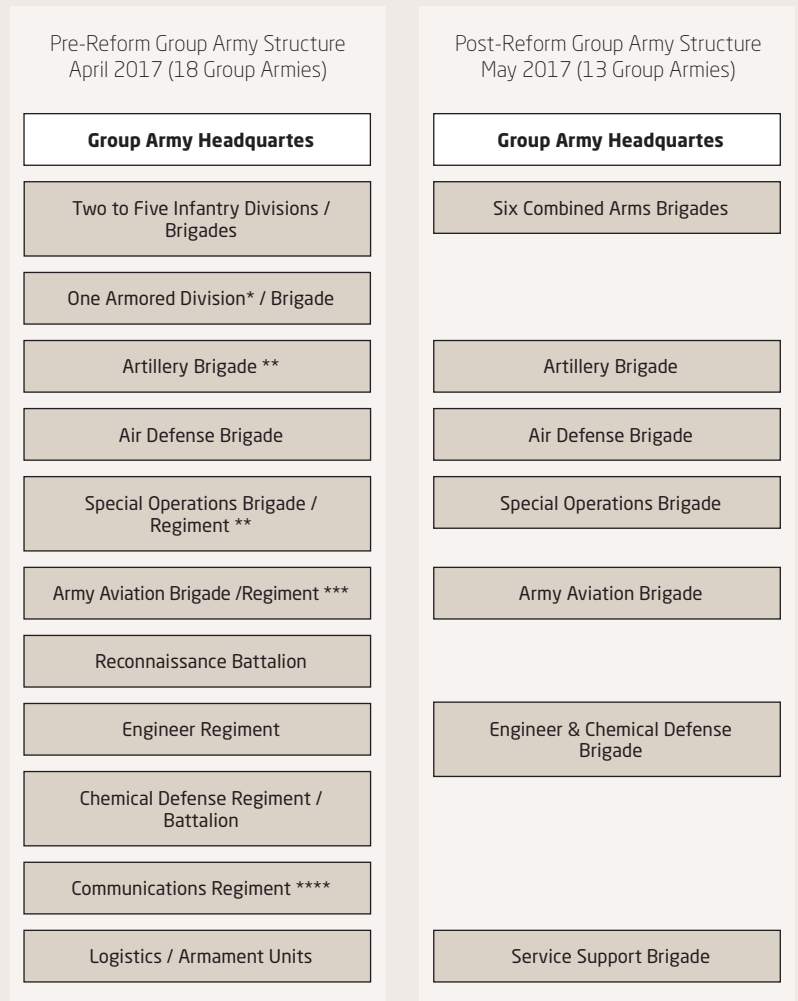
Russia's military districts and China's new Military Theatre Commands



Source: Author's own research

Restructuring group armies into combined corps

Organization of PLA Combined Corps before and after the reforms



* the 38th Group Army (GA) had an armored division | ** 1st / 42 GAs also had a long-range rocket brigade
 *** SOF / Army aviation units in some group armies
 **** A few group armies were also assigned an electronic countermeasures brigade or regiment
 Note: Prior to reform, only two GAs had similar structure

Source: Dennis Blasko "The Biggest Loser in Chinese Military Reforms: The PLA Army" ²⁷

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The PLA has somewhat standardised the structure of these Combined Corps, with each having six Combined Arms Brigades and another six support brigades. Each Military Theatre Command has two or three CCs, amounting to between 12 and 18 combat brigades.

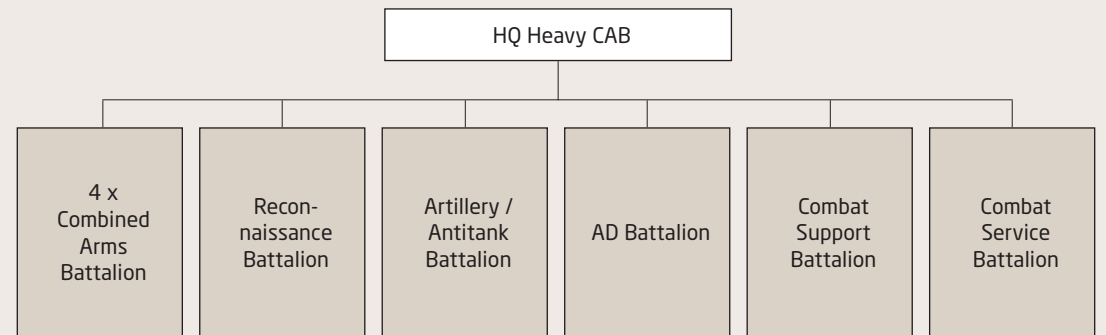
The CABs themselves have undergone changes, so that each has units of all arms and services thereby giving them the capability to operate independently for protracted periods of time and over large distances with greater manoeuvrability and firepower.

The PLA is thought to have five types of CABs, tailor-made to the terrain and role envisaged for that theatre. The chart below shows how one such CAB is organized. It is identical to the Russian army's Motorised Rifle Brigade, which was employed with great success in Ukraine and Donbas. China's military planners have clearly picked up lessons from Chechnya and Georgia, and applied them to overcoming the challenges of delayed and cumbersome mobilization, as well as of training and integration, by placing all components of warfighting under one commander. Each of the PLA's CABs has up to four Combined Arms Battalions (CAB) which are similar in structure, equipment, roles and capability to the Russian Brigade Tactical Groups (BTG) which were employed in Ukraine. ²⁸

Exhibit 4

Placing all components of war fighting under one commander

Organization of a PLA Combined Arms Brigade



Source: Military Balance 2019 ²⁹

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With regard to human resources, Xi chose the PLA's 91st anniversary to announce cuts in manpower. "Quantity should be reduced and quality improved to build capable and efficient military forces that should be science and technology-oriented rather than relying on labor intensity," he said.³⁰ The reduction in infantry numbers aimed to elevate other services like PLASSF, the Special Forces and to enable the expansion of the air force and navy (PLAAF and PLAN).³¹ The PLA axed 300,000 personnel, reducing its overall strength to 2 million men.³² Again, this move had parallels in the Russian reforms, which trimmed 200,000 posts from its bloated and inefficient officer corps.³³ Not by coincidence, 170,000 of the 300,000 demobilizations ordered by Xi came from the officer corps.

The PLA Special Operation Forces (PLASOF) and Army Aviation gained the most from Xi's reforms. They were brought together, as the battlefields of the Russian periphery had proven Special Forces and Aviation, particularly helicopters, to be key components of non-contact warfare. The Russians had overcome early reverses in Afghanistan by replacing fighter aircraft with helicopters as the chosen weapon of war against Afghan militias. The combination of Special Forces and helicopters proved highly successful, as the PLA has realized. These two arms have seen the greatest expansion in their numbers.³⁴

The PLA differs from other modern militaries in not putting PLASOF under a national level headquarters. The US has placed Special Forces Command at the apex level, as does Russia with the Special Operations Forces Command (KSSO). In the PLA, however, Special Forces units are under operational level and, in some cases, tactical level control. PLASOF has units in the PLA Ground Forces, the PLAN, PLAAF, the PLA Rocket Forces and the People's Armed Police.

Under the previous Military Region model, each MR had a Special Operation Forces group or regiment totaling between 1,000 and 2,000 personnel. There has been an immense change, as each group expanded to an SOF brigade within each Combined Corps and these SOF brigades have doubled in strength to between 2,000 and 3,000 personnel.³⁵

PLASOF is responsible for intelligence and reconnaissance with additional responsibility for conducting direct action, which is another thing that differentiates them from US special forces.³⁶ The PLA views PLASOF as a key force multiplier in the conduct of missions to achieve political, diplomatic and military objectives in peace and war. This resonates with the tasks and employment of the *Spetsnaz* of the Russian Special Forces as we have seen in Ukraine and Crimea.

Reforms to Army Aviation have been sweeping in both quality and quantity. This critical force supports a number of important capabilities including tactical mobility, special operations and logistics support. Prior to April 2017, there were

seven Army Aviation brigades and five regiments³⁷; latest reports indicate the PLA now has a total of 12 Aviation (Helicopter) Brigades, one mixed aviation brigade and four helicopter training brigades.

The major increases in SOF and Aviation were a clear sign of the importance the PLA affords to its doctrine of non-contact and asymmetric warfare, as both are key to implementing hybrid and asymmetric warfighting strategies.

4. China's military relations with Russia today

4.1 JOINT TRAINING

As a result of strategic consultations at the highest levels of government, joint training became a major facet of military cooperation within the Sino-Russian relationship. Joint military exercises began in 2005, and were expanded from land, air and sea exercises to embrace new and sensitive fields e.g. information and anti-missile technology. Likewise, the scope of these exercises has grown to cover the entire spectrum from the tactical to the strategic levels.³⁸ They advance mutual understanding, and play a significant role in the enhancement of combat capability and strategic deterrence.³⁹ Such exercises have facilitated:

- the showcasing of Russian weapons to PRC military commanders, thereby promoting weapons sales to China, e.g., sales of the S-400 Triumf Air Defense System and IL-78 tankers.⁴⁰
- greater interoperability between the two militaries.
- important training opportunities, as the PLA's lack of battle experience (it has not fought a war since 1979) is offset by live and confrontational exercises to learn new tactics, techniques and procedures.⁴¹ Naval exercises have included conduct of joint operations at sea to train against non-traditional threats like terrorism, gunrunning, piracy etc.
- the training of a cadre of linguists within both militaries who assist as translators to facilitate interoperability
- joint operations to deter threats to member states of the Shanghai Cooperation Organization (SCO).⁴²

Joint training has become a major facet of Sino-Russian military cooperation

4.2 MILITARY TECHNOLOGY COOPERATION

In the 1950s, China's defense industry benefited greatly from the availability of Soviet technology and armaments, which were later reverse-engineered and indigenized. The Sino-Soviet split interrupted those efforts, and large-scale cooperation on military technology only resumed around 1993. Russian arms sales to China, including the transfer of major weapons systems and defense technology as well as licensing agreements, have yielded benefits for both sides.⁴³

According to the Stockholm International Peace Research Institute (SIPRI), China has procured defense equipment worth 35.3 billion USD since 1990, which was 77.8 percent of its total imports for the same period.⁴⁴ In recent years, China has acquired Russian engines for its newest fighters and bombers, which are more reliable and perform better than its own versions. Russian engines are used on all three of China's indigenous fourth-generation fighter lines. China also seems interested in outfitting its prototype fifth-generation J-31 fighters with next-generation Russian engines⁴⁵.

4.3 MECHANISATION AND FIREPOWER

The PLA has also undertaken a massive upgrade to mechanised units. As all PLA mechanised formations are equipped with Russian derivatives, they continue to imbue the same philosophy. The PLA's modern Type 96 (similar to T-72) or the older T-59/ T-62/T-63, or even the ZBD-03/ZBD 04/WZ-551/ WZ-553 series of ICVs, are all of Russian design and focus on better and accurate firepower rather than manoeuvre. The PLA's 'Heavy', 'Medium' or 'Light' CABs appear to have adopted the doctrine of mechanisation, including reorganisation and equipping norms akin to Russian Mechanised forces.

The phenomenal increase in the firepower component, especially Long Range Vectors, Multiple Launch Rocket Systems, Multiple Barrel Rocket Launchers and Drones/UAV, in the Combined Armies and Motorised Brigades seems to suggest that the PLA may be following the Russian model in viewing the deployment of artillery as a "finishing arm" Today's CABs are supported by an integrated artillery battalion, an artillery battery in each battalion of the CAB, in addition to the artillery brigade at the Corps level.

These two major shifts in operational level concepts will directly drive the PLA's approach to equipment, manpower recruitment needs and training in the future. Military thinkers and operational commanders need to focus on the development of these concepts to extrapolate and predict the PLA's future trajectory as it aims to become a modernised military by 2035. Its relationship with Russia is key for this analysis, as has been aptly summarized by Russian journalist Maxim Trudolyubov:

"On the political front, Russia feels like a China understudy. On the Military front, Russia, is a country that has gone through transformative reforms and modernization and is definitely the leader and China is more the understudy. Russia's military reforms preceded China's reforms by quite some time."⁴⁶

Delving deeper into Russian military thinking and doctrines will be important to forecast the likely future trajectory of the new look PLA.

The PLA has undertaken a massive upgrade to mechanised units

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